

**Abstract of the Disclosure**

The present invention relates to the elucidation of specific molecular features of endogenous 2-oxoacid molecules and their derivatives for activating hypoxia-inducible gene expression by inactivating hypoxia-inducible factor hydroxylating enzymes. This invention identifies agents that can be used to induce tissue vascularization, treat anemias, induce tolerance to stroke and heart attacks, improve tissue healing and improve organ transplantation.